



## PATENT ABSTRACTS OF JAPAN

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**G06F 3/033****G06F 3/03**(21) Application number: **08075950**(22) Date of filing: **29.03.96**(71) Applicant: **BIJIYUARU SCI KENKYUSHO:KK**(72) Inventor: **YOSHIDA KENJI****(54) SPACE MOUSE, MOUSE POSITION DETECTION DEVICE AND VISUALIZATION DEVICE****(57) Abstract:**

**PROBLEM TO BE SOLVED:** To provide a space mouse which can be applied to all computer applications that point in real time the two-dimensional and three-dimensional spaces and also can be fetched in a reduced space and in a cordless way by preparing a light reflection means, a light emitting means and a switch means of the light emitting means.

**SOLUTION:** A space mouse consists of a light reflecting ball 4, a stick 6 which supports the ball 4, a light emitting means, and a switching means of the light emitting means. A light irradiation device 3 consisting of an LED is attached at the outside of the lens of a CCD video camera 2 to irradiate the read light on the space mouse that is held by a person 11 standing in the front of a blue back screen. The light reflected on the ball 4 is received by the camera 2 as an image 12. This image is analyzed by a coordinate recognition computer 5 and the position of the image is calculated in real time as XY coordinates included in a space. Thus the mouse has a simple constitution and can be easily operated owing to its light and cordless structure.

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